

LESSON

4

Introduction to Algebra**Reading Strategies: Focus on Vocabulary**

You can see the word **equal** in **equation**. In math, an equation indicates that two quantities are equal, or the same. The = **sign** in an equation separates one quantity from the other. The value on each side of the = sign is the same.

Look at the equations below. Notice how the value on each side of the = sign is the same for each equation:

$$5 + 7 = 8 + 4 \quad 19 - 7 = 12 \quad 42 = 3 \cdot 14$$

If an equation contains a variable, and the variable is replaced by a value that keeps the equation equal, that value is called a **solution** of the equation.

Examples:

$$y \div 4 = 15$$

$$y \div 4 = 15$$

$$80 \div 4 \neq 15$$

$$60 \div 4 = 15$$

"80 divided by 4 is not equal to 15."

"60 divided by 4 is equal to 15."

Which are equations? Write the correct sign, = or \neq .

1. $7 + 23$ $9 + 21$ _____

2. $35 + 15$ 45 _____

3. $28 - 7$ $15 + 6$ _____

Replace the given value for the variable. Is it a solution?

4. $d + 28 = 45$ for $d = 17$

5. $84 \div s = 28$ for $s = 3$

6. $17 = 56 - t$ for $t = 40$

7. $86 = 4w$ for $w = 24$